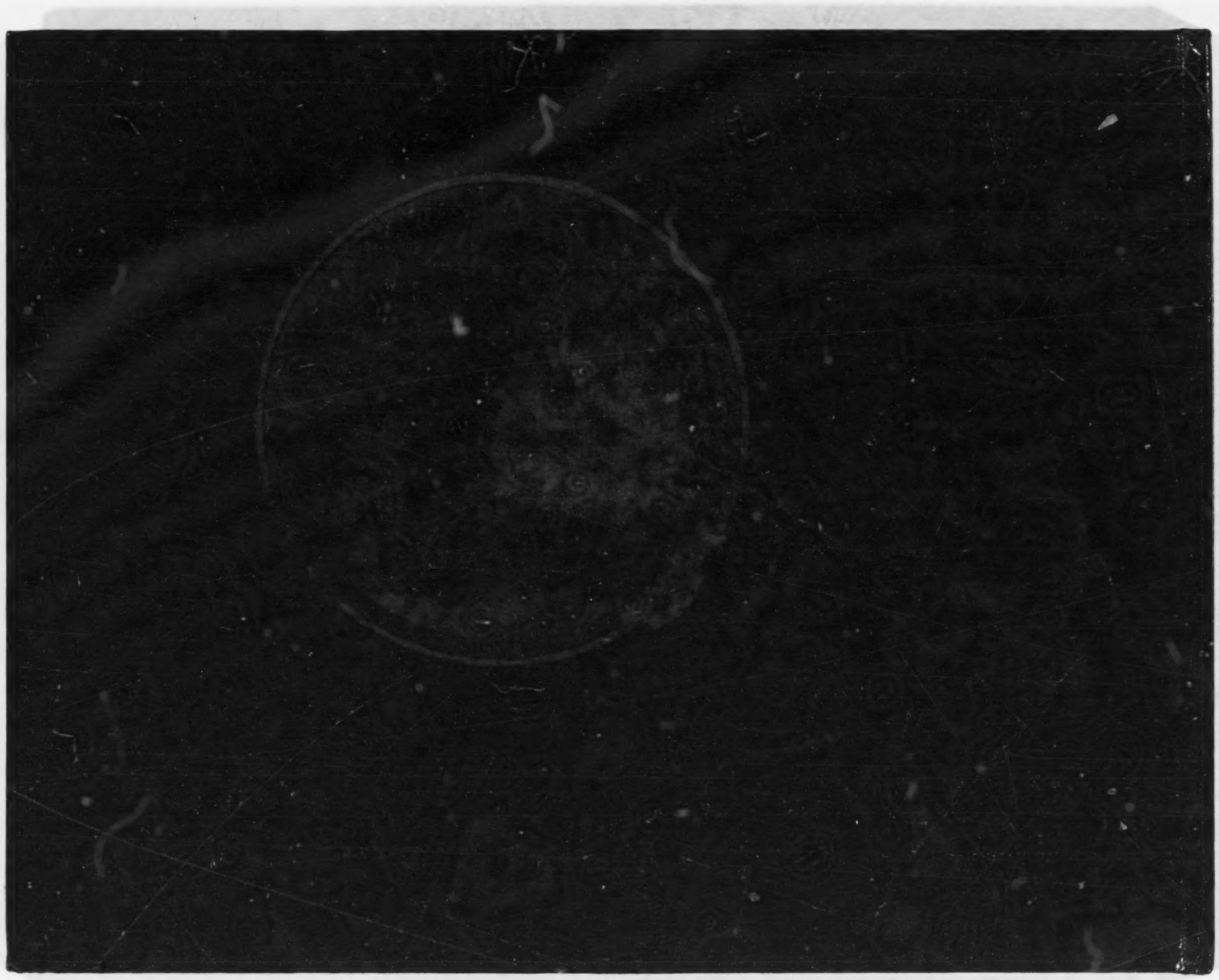
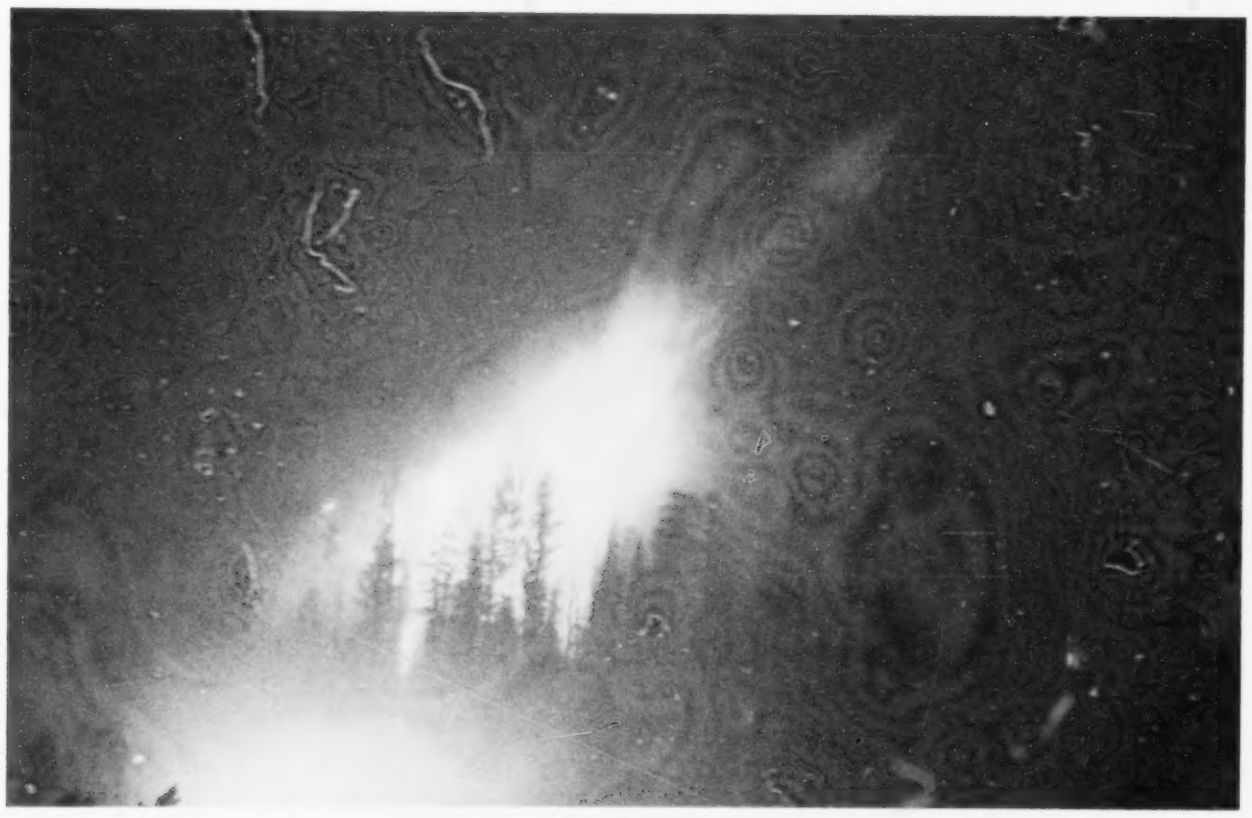


NORTHERN REGION

SUMMER OF '88



All photos by USDA Forest Service and BIFC, USDI Bureau of Land Management unless otherwise noted.

Cover & Map art by Leslie Drake Robinson
Book Design by Michael Egeler

Massive smoke columns boiled into the skies across Montana, Idaho, and the Dakotas. Walls of fire scorched thousands of acres a day and flaming embers were scattered by dry winds, only to start new fires.

Two years of record-breaking drought, beginning in the fall of 1986, laid the groundwork for the 1988 fire season. Only in 1910 and 1919 were more acres burned. Conditions in the Northern Region of the Forest Service from 1986 to 1988 were characterized by lack of moisture, high temperatures, low humidity, little or no snow cover, and a dominant high pressure weather system.

There was a preview of things to come in February 1988 near Whitehall, Montana, when a wind-driven grass fire burned several structures and 1,000 acres. It resulted in the earliest use of an overhead team in the 80-year history of this Region. Before the summer ended, over four thousand fires would blacken more than a million acres on all wildlands in northern Idaho, Montana and the Dakotas.

"It was pretty incredible—I mean, I've been doing fires since 1976, and I've been on the Bitterroot Hotshot crew since 1984, and I've never seen anything like this summer, with the fire behavior, and all of that."

Rene Eustace,
Bitterroot Hotshots

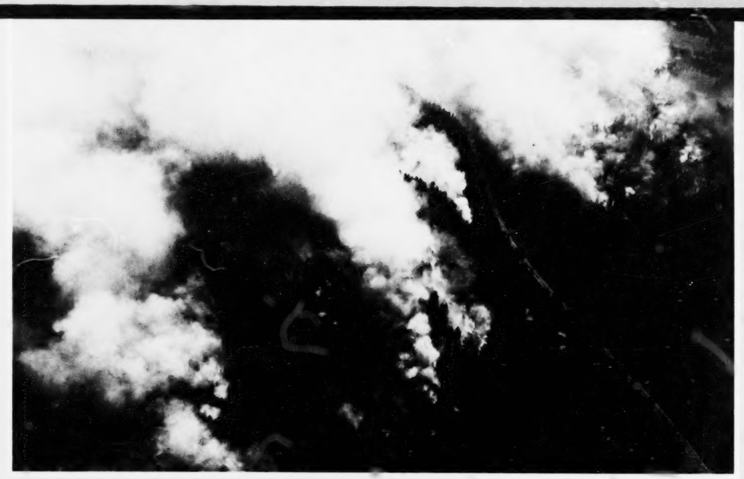


Photo by Larry Mayer

Photo by Larry Mayer

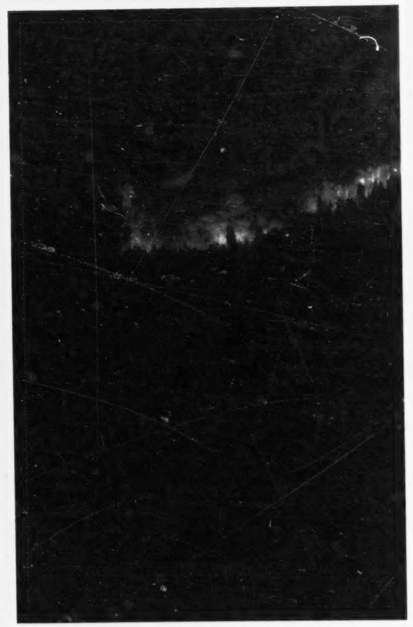
"Things happened this year that, in my experience, I had never seen before, and especially at that early in the season."

Pat Pierson,
Forestry Technician

Photo by Larry Mayer

The fire season began in June when more than 100,000 acres burned in eastern Montana and the western Dakotas. The most significant fires were Early Bird on the Northern Cheyenne Indian Reservation and Brewer on the Custer National Forest. They burned 80,000 acres between them. The Brewer Fire resulted in the first of three fire shelter deployment situations. Pat Pierson, forestry technician of the Beartooth Ranger District, said of these fires, "It was incredible the things we saw. I saw fires crowning out and running eight miles during the night. Things happened this year that, in my experience, I had never seen before, and especially that early in the season." Eight fires that would ultimately require overhead teams began in June, including Storm Creek and Canyon Creek.

By July 20, the Canyon Creek and Gates Park Fires were showing new life but were being managed as prescription fires in the Scapegoat and Bob Marshall Wilderness areas respectively. Two days later, six major new starts led to the establishment, on July 24, of an expanded coordination center at the Aerial Fire Depot in Missoula. Known as the Regional Incident Coordination Organization (RICO), this organization expanded the capabilities of the Regional Coordination Center to respond to the increased workload of a major area-wide fire year. RICO continued in operation until September 20.

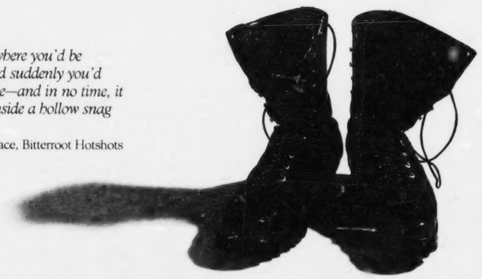


"The things I saw there (Early Bird and Brewer fires) made me basically perk up and say, 'Hey, we're working with some serious fire conditions this year.'"

Pat Pierson,
Forestry Technician

"There were surprises where you'd be working in an area and suddenly you'd spot [a fire] to your side—and in no time, it would go from a fire inside a hollow snag to 500 acres."

Rene Eustace, Bitterroot Hotshots



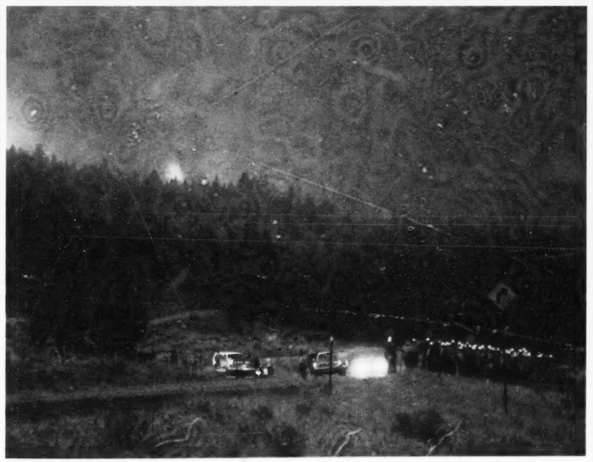


Photo by John Nelson

"Between the fire on both sides, they looked like rows of baked potatoes,"

Ranger Jerry Dombrovske

Supplying fire crews with equipment and tools required monumental efforts. More than 19,000,000 pounds of supplies were shipped from the Fire Cache at the Aerial Fire Depot, breaking all previous records.

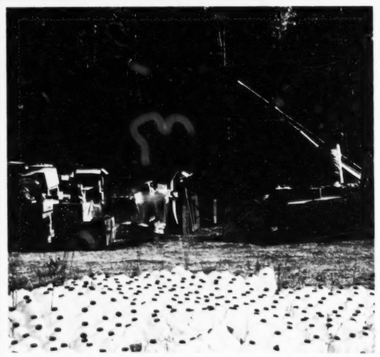
The demand for crews, retardant and other resources soon exceeded supplies. The Region exhausted the national supply of pulaskis and water pumps. Dave Levesque of the Fire Cache reported, "We did run out (of pulaskis). But we were always able to give them some of what they wanted but we weren't able to fill the orders full. You know, if they ordered 100, we'd give them 50 or 75. We mostly supplied people with what they wanted. If we didn't have it, we told them to keep ordering."

On August 16, a Regional MAC (Multi-Agency Coordination) group was activated, consisting of representatives of the National Park Service, Bureau of Land Management, Bureau of Indian Affairs, Forest Service and the three States within the Northern Region. The MAC group is the decision-making wildland fire management organization for the Northern Rocky Mountain area. They set priorities for the major incidents and promptly address problems and opportunities.

This group is activated when several agencies are simultaneously requiring fire suppression forces which exceed their individual capabilities.

"The catering is really great—you have the option of making peanut butter sandwiches instead of ham. It may seem like a small thing, but you get sick of ham."

Rene Eustace,
Bitterroot Hotshots



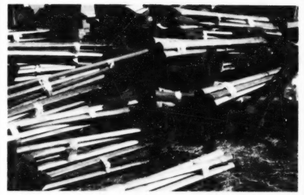


Photo by John Nelson

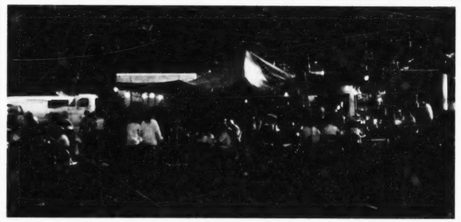


Photo by John Nelson

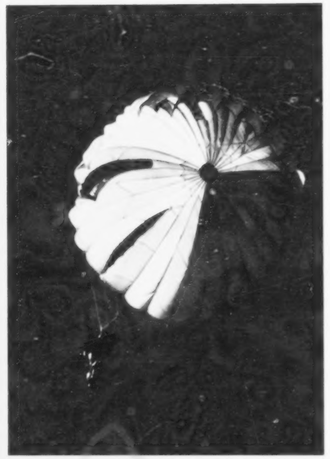
Fire Camp: *"I am still shocked—it is almost like your own little town—you have the commissary, you have the doctor's office, you have the showers. But you are really primitive."*

Maureen Wolcott,
Bitterroot Hotshots

Of the 1,422 fires on National Forests in the Northern Region, over 1,370 were suppressed by initial attack crews. With the objective of snuffing out fires while they were still small, smokejumpers and Ranger District crews hit them fast and hard when they first started. These fires failed to make the headlines, but they represented a real success story. If it had not been for the initial attack crews, the season would have been much worse.

Aaron Aylsworth, University of Montana student and first-year smokejumper, jumped onto a fire in the Salmon River Breaks on the Nez Perce National Forest. A pack of tools got caught in a tree. He tells this story: "(I) started climbing up to get the pack of tools. Got up to 30 feet. People started yelling 'Get out of the tree.' The fire is getting away from them. Then they yell to stay in the tree. The fire started climbing the tree. It got 12-15 feet up the tree. I was climbing around trying to keep out of the smoke. That's one of those days when you're wondering if you're making your money."

To beef up the initial attack effort, additional smokejumpers were brought in from Alaska (Region 10) and Forest Service Regions 4, 5, and 6. Ranger Districts also hired and trained additional personnel for ground attack.



"It is a great act of faith and trust that the parachute is going to open."

Aaron Aylsworth, smokejumper

"The smoke burts your lungs. Just imagine being in a smoke-filled bar day after day, not leaving it. It is 10 times worse than that."

Tom Gonnoud
Bitterroot Hotshots

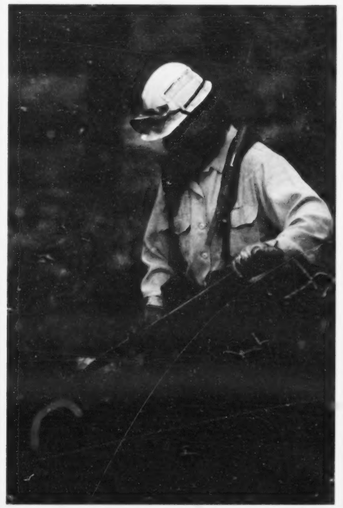
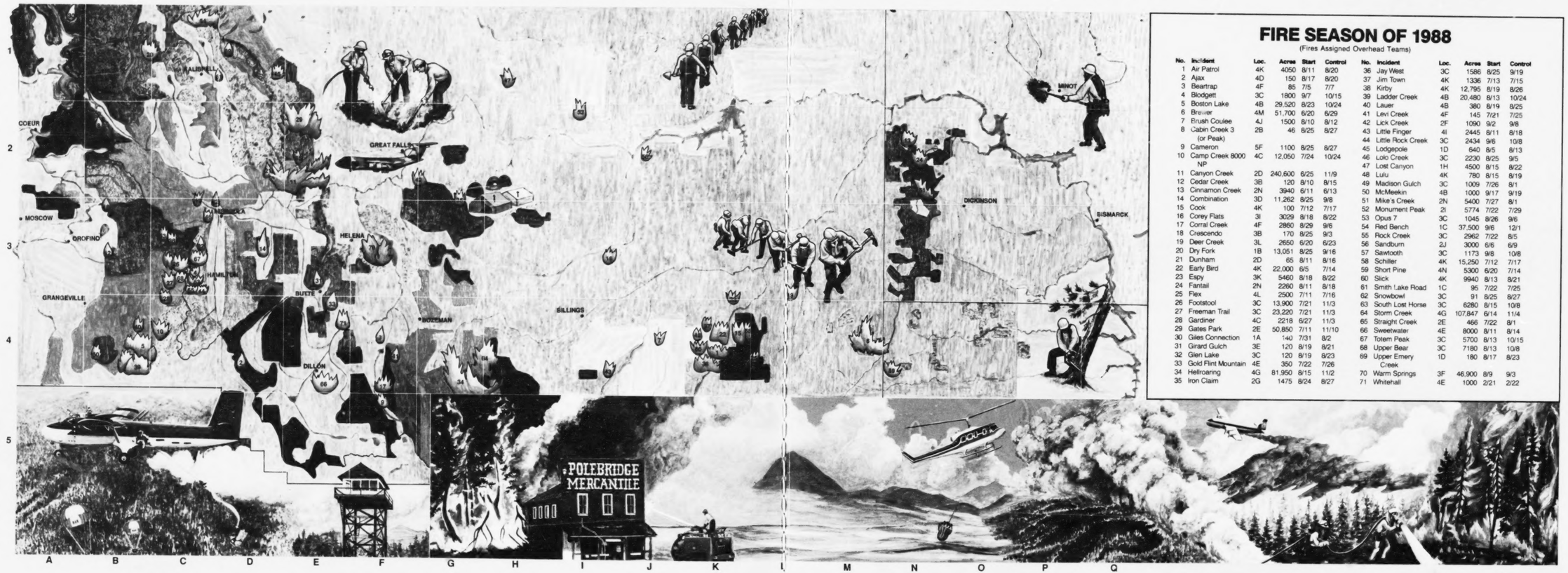


Photo by Bill Sallaz



FIRE SEASON OF 1988

(Fires Assigned Overhead Teams)

No.	Incident	Loc.	Acres	Start	Control
1	Air Patrol	4K	4050	8/11	8/20
2	Ajax	4D	150	8/17	8/20
3	Beartrap	4F	85	7/5	7/7
4	Blodgett	3C	1800	9/7	10/15
5	Boston Lake	4B	29,520	8/23	10/24
6	Brewer	4M	51,700	6/20	6/29
7	Brush Coulee	4J	1500	8/10	8/12
8	Cabin Creek 3 (or Peak)	2B	46	8/25	8/27
9	Cameron	5F	1100	8/25	8/27
10	Camp Creek 8000 NP	4C	12,050	7/24	10/24
11	Canyon Creek	2D	240,600	6/25	11/9
12	Cedar Creek	3B	120	8/10	8/15
13	Cinnamon Creek	2N	3940	6/11	6/13
14	Combination	3D	11,262	8/25	9/8
15	Cook	4K	100	7/12	7/17
16	Corey Flats	3I	3029	8/18	8/22
17	Corral Creek	4F	2860	8/29	9/6
18	Crescendo	3B	170	8/25	9/3
19	Deer Creek	3L	2650	6/20	6/23
20	Dry Fork	1B	13,051	8/25	9/16
21	Dunham	2D	65	8/11	8/16
22	Early Bird	4K	22,000	6/5	7/14
23	Espy	3K	5460	8/18	8/22
24	Fantail	2N	2260	8/11	8/18
25	Flex	4L	2500	7/11	7/16
26	Footstool	3C	13,900	7/21	11/3
27	Freeman Trail	3C	23,220	7/21	11/3
28	Gardiner	4C	2218	6/27	11/3
29	Gates Park	2E	50,850	7/11	11/10
30	Giles Connection	1A	140	7/31	8/2
31	Girard Gulch	3E	120	8/19	8/21
32	Glen Lake	3C	120	8/19	8/23
33	Gold Flint Mountain	4E	350	7/22	7/26
34	Hellroaring	4G	81,950	8/15	11/2
35	Iron Claim	2G	1475	8/24	8/27
36	Jay West	3C	1586	8/25	9/19
37	Jim Town	4K	1336	7/13	7/15
38	Kirby	4K	12,795	8/19	8/26
39	Ladder Creek	4B	20,480	8/13	10/24
40	Lauer	4B	380	8/19	8/25
41	Levi Creek	4F	145	7/21	7/25
42	Lick Creek	2F	1090	9/2	9/8
43	Little Finger	4I	2445	8/11	8/18
44	Little Rock Creek	3C	2434	9/6	10/8
45	Lodgepole	1D	640	8/5	8/13
46	Lolo Creek	3C	2230	8/25	9/5
47	Lost Canyon	1H	4500	8/15	8/22
48	Lulu	4K	780	8/15	8/19
49	Madison Gulch	3C	1009	7/26	8/1
50	McMeekin	4B	1000	9/17	9/19
51	Mike's Creek	2N	5400	7/27	8/1
52	Monument Peak	2I	5774	7/22	7/29
53	Opus 7	3C	1045	8/26	9/6
54	Red Bench	1C	37,500	9/6	12/1
55	Rock Creek	3C	2962	7/22	8/5
56	Sandburn	2J	3000	6/6	6/9
57	Sawtooth	3C	1173	9/8	10/8
58	Schiller	4K	15,250	7/12	7/17
59	Short Pine	4N	5300	6/20	7/14
60	Slick	4K	9940	8/13	8/21
61	Smith Lake Road	1C	95	7/22	7/25
62	Snowbowl	3C	91	8/25	8/27
63	South Lost Horse	3C	6280	8/15	10/8
64	Storm Creek	4G	107,847	6/14	11/4
65	Straight Creek	2E	466	7/22	8/1
66	Sweetwater	4E	8000	8/11	8/14
67	Totem Peak	3C	5700	8/13	10/15
68	Upper Bear	3C	7180	8/13	10/8
69	Upper Emery Creek	1D	180	8/17	8/23
70	Warm Springs	3F	46,900	8/9	9/3
71	Whitehall	4E	1000	2/21	2/22

For those who experienced the summer of '88, vivid memories remain. Mike Paterni, Ranger at Phillipsburg, Montana, reported flames 200 feet above the tops of the trees as the Combination Fire roared through the Long John Mountains of southwestern Montana. Willis Curdy, a smokejumper with 18 years of experience, said, "I've seen fire conditions from New Mexico to Alaska, and from Minnesota to California, and there are a lot of things that happened this summer that I've never seen."

Fires usually are calmer at night. The following is a quote from a fire training manual: "At night, the air and ground cools, the air current reverses direction, humidity and fuel moisture increase and large fires are easier to control," (FIREFIGHTER'S GUIDE, National Wildfire Coordinating Group, 1986). Consequently, many people were on the fire lines at night. Unfortunately, 1988 was not a typical year. According to Steve Gauger, one of the incident commanders on the Canyon Creek Fire, "Fuel moistures were so low that nighttime temperatures had little effect. Fire moved as rapidly downhill at night as uphill in daytime."

At night, crews have to be even more careful of unseen threats such as falling snags, rolling rocks, and tripping hazards. According to Incident Commander Dave Poncin, "Some fires couldn't be fought at night because of dead snags from Mountain Pine Beetle and the tremendous hazard these posed to personnel."

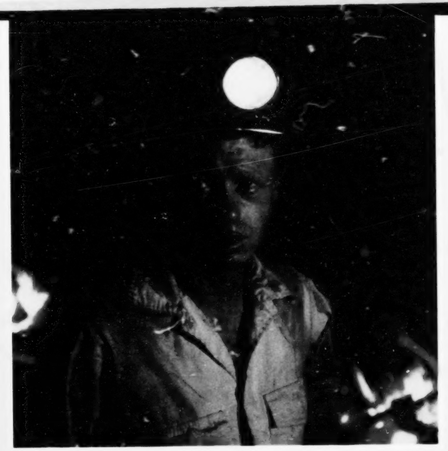


Photo by Larry Mayer

Photo by Larry Mayer

"Usually we just get beat up a little bit until the weather changes. But this is the first time I'm aware of that we had our butts kicked for about 45 to 50 days during the fire season."

George Weldon, Resource Asst.

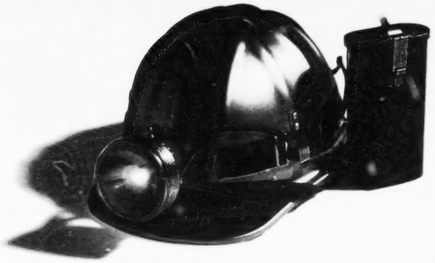
"You don't get much sleep sometimes. And it's a lot like being in a war zone. You try and sleep when you can. It puts a strain on a person."

John Dreadfulwater,
Engine Foreman

Photo by Larry Mayer

"The first time I heard a fire crowning out and making a run . . . you hear this big snapping, and it is just rushing through the trees . . . hearing it is something that could be one of the most scary things of all. It sounds like a train coming through."

Jeremy Hauk,
Initial Attack Crew



Fire crews experienced the brunt of the effort. They were in the front lines, so to speak. Rene Eustace of the Bitterroot Hotshot Crew reported, "We did 16- to 18-hour days on occasion. . . . We had to continually monitor what the fire was doing. . . . You'd be working in an area and suddenly you'd spot [a fire] to your side. In no time it would go from a small fire inside a hollow snag to 500 acres. You'd have to back off."

Maureen Wolcott of the Bitterroot Hotshot Crew said, "Everybody gets pretty grungy together, and we all go through the same exact thing . . . being tired, being dirty."

While fighting the Canyon Creek Fire, Jerry Dombrovske's crew deployed their fire shelters. "Between the fire on both sides of us, they looked like rows of baked potatoes," he said. He described his experience this way: "We saw it was going to come. We separated the gas cans and the chain saws from the people. Then we sat down for half an hour and watched the fire coming at us before we got into the shelters. . . . There were embers as big as coffee cups falling around us."

Fire fighting is always hazardous. Unfortunately, there were injuries and, sadly, two fatalities. Cheryl Old Horn Deputy lost her life in a vehicle roll-over on the Crow Indian Reservation's Brush Coulee Fire August 10. Patrick David was killed by a falling snag on Red Bench Fire September 9. In spite of this, the safety record was remarkable, considering the duration, intensity, and number of people and machines involved.

Photo by Bill Sallaz

Photo by Larry Mayer

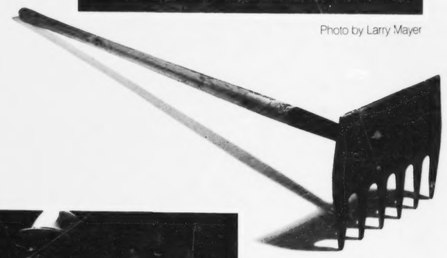


Photo by Michael Gallacher

". . . it didn't take a very intelligent person to figure out that when you got to a fire this year, by God, you'd better be ready for it."

Pat Pierson,
Forestry Technician

"The flames were about a 100-foot wall. You could see anything you wanted. We didn't need too much artificial lighting to see what we were doing."

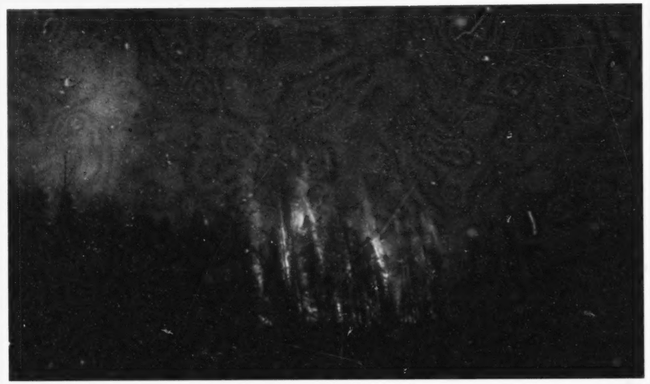
Benny Ayres, Equipment Operator

Photo by John Nelson

By the first week in August, activity appeared to be slowing and on August 7, the RICO organization was geared down. Our relief was short-lived, however, when the Warm Springs Fire began August 9th on the Helena National Forest and ultimately grew to 46,900 acres. Ladder Creek Fire on the Nez Perce National Forest began August 13. There were four major new starts August 15: Hellroaring on the Gallatin, Lost Canyon on the Rocky Boy Indian Reservation, Lulu on the Northern Cheyenne Indian Reservation, and South Lost Horse on the Bitterroot National Forest.

The Boston Lake incident began August 23 on the Nez Perce National Forest. This fire ultimately grew to nearly 30,000 acres. It eventually burned into the Ladder Creek Fire for a combined size of more than 50,000 acres. Before they were over, Boston Lake and Ladder had three different incident commanders and were not controlled until October 24.

On August 29, strong winds drove the Canyon Creek Fire across the Dearborn River, and out of the Wilderness. At 2 a.m., August 29, Seth Diamond of the Rocky Mountain Ranger District was leading two crews of firefighters into the Canyon Creek Fire. He reported, "The sky was brilliant orange-red. Although it was night, it was like daylight. We could hear the roar as the flames raced through the trees." On August 30, Canyon Creek was declared a wildfire. On September 6, erratic winds blew the perimeter from 60,000 acres to 230,000 acres, burned outbuildings, forced an emergency fire shelter deployment and necessitated fire crew evacuation. Before it was over, it became the largest fire in the Region, 247,219 acres.



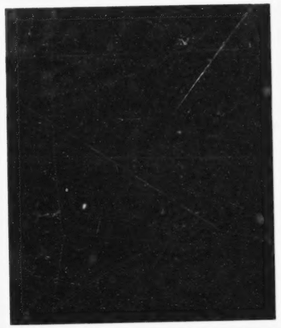
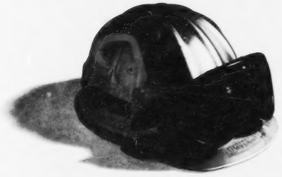


Photo by John Nelson



"From about the first of July, I think I only spent 4 or 5 days home.

Willis Curdy, smokejumper

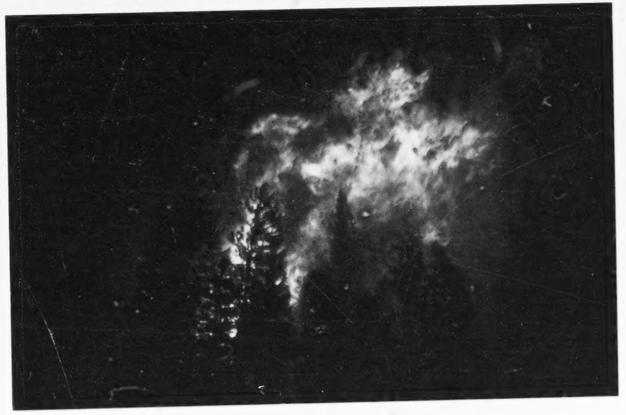


Photo by John Nelson

Red Bench Fire began September 6 and ultimately burned into Glacier National Park, consuming 37,500 acres. In addition to the tragic fatality of Patrick David, several other firefighters were injured by falling snags. The fire consumed the pole bridge across the North Fork of the Flathead River, from which the town of Polebridge derives its name. Remarkably, Polebridge General Store was saved, although several homes and outbuildings were lost.

On September 10, the largest commitment of personnel, supplies, and equipment—nearly 16,000 people were involved in the fire effort. Twenty major fires were burning in the Region on that date, not including those in Yellowstone National Park.

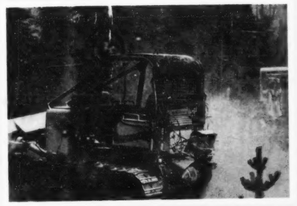
By late September, longer nights, cooler days, higher humidities, and less wind finally gave us the break we had prayed for, improving conditions for containment and control. The larger fires, however—Canyon Creek, Red Bench, and Gates Park—would require wetting rain or snow and would not be controlled until November.

We saw the heaviest commitment of fire suppression resources in the Region's 80-year history. All sorts of records were broken. Every available trained crew and overhead team was used. The Montana and Idaho National Guard, two battalions of regular military, and trained crews from Canada were called into action before it was over. The interagency cooperation and approach to the total effort was outstanding. Eight Federal, eight State, and numerous county and local agencies joined together in a common cause.

The last fire, Red Bench, was finally controlled on December 1. Thus ended the 1988 fire season.

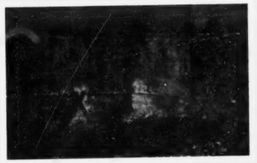
"Once it gets going, it just generates energy through itself, it just builds like a snowball rolling down a hill."

George Weldon, Resource Asst.



"Four days later, the damn wind changed direction. Up the canyon it went. Never did stop until the snow flies."

Blase DiLulo, Forestry Technician



Re smokejumpers: *"If they were physically fit after they got off of a fire, they were sent out again. They were just given enough time to change clothes.*

Ollie Goldammer, Forest Dispatcher

Photo by Bill Sallaz

The people of the United States were understanding and supportive. Help came from all 50 States, Washington D.C. and the Virgin Islands. Our neighbors in Canada also pitched in. The area's residents endured the inconvenience of fire and restrictions with minimum complaint.

An aggressive recovery and restoration effort was initiated before the last fires were out. Fire crews began seeding firelines and installing erosion control structures. Salvage timber sales were prepared.

According to Bob Schrenk, coordinator of the Regional Fire Recovery Team, "The fires of 1988 had both positive and negative effects. The goal of the Forest Service recovery effort is to do short- and long-term work to prevent resource damage and to insure that management objectives of the Forest Plans are met."

In 1988, the Region experienced more days of extreme burning conditions than any other year in recorded history. New maximum levels of energy release, burning indices, and rates of spread were established at many fire danger recording stations. Fire behavior observed this year baffled the experts with its unprecedented and never-before-observed intensity. We obtained new knowledge and new experience in the summer of '88. If need be, we can do it again and do it better because of what we've learned.

Photo by Bill Sallaz

1988 Wildfire Summary

The following includes Montana, North Idaho, North Dakota, NW South Dakota, and the Greater Yellowstone Area:

PERSONNEL:

Max. no. of crews on fires	479 on Sept. 4, 1988
Total no. of personnel on fires at peak of season	15,700 on Sept. 10, 1988
Max. no. of jumpers on fires at one time	203 on Aug. 30, 1988
Total military personnel on fires	8 Battalions (6 Army, 2 Marines) 6,150
Max. no. of Montana National Guard on fires	442 on Sept. 10, 1988
Max. no. of Idaho National Guard on fires, Northern Region	40

FIRES: (The following is as of October 31, 1988.)

Total fires USDA Forest Service, Region One	1,422 fires (776,614 acres)
Total fires in Montana (all agencies)	2814 fires (960,322 acres)
Total fires, USDA Forest Service, North Idaho	422 fires (117,810 acres)

EQUIPMENT:

Max. no. of engines at one time	448 on Sept. 13, 1988
Max. no. helicopters	96 on Sept. 16, 1988
Max. no. of Montana National Guard vehicles used	174 on Sept. 10, 1988
Max. no. of Montana National Guard helicopters used	8 on Sept. 10, 1988
Max. no. Idaho National Guard vehicles, Northern Region	16
Max. no. Idaho National Guard helicopters used	2

COSTS:

Approximate cost to Forest Service, Northern Region	$74 million as of 9/30/88

OTHER:

Total retardant dropped			4,869,700 gallons
Supplies shipped from Missoula Fire Cache			19,212,420 lbs. as of 9/22/88
Aircraft hours flown:	Smokejumper & jumper cargo	1,200	
	Air tanker	4,300	
	MAFFS	450	
	Lead Plane	5,000	
	Transport (light & heavy)	3,000	
	Helicopter	11,000	(This does not include military hours)
	Total	24,950	

(Figures are tentative, subject to final verification.)